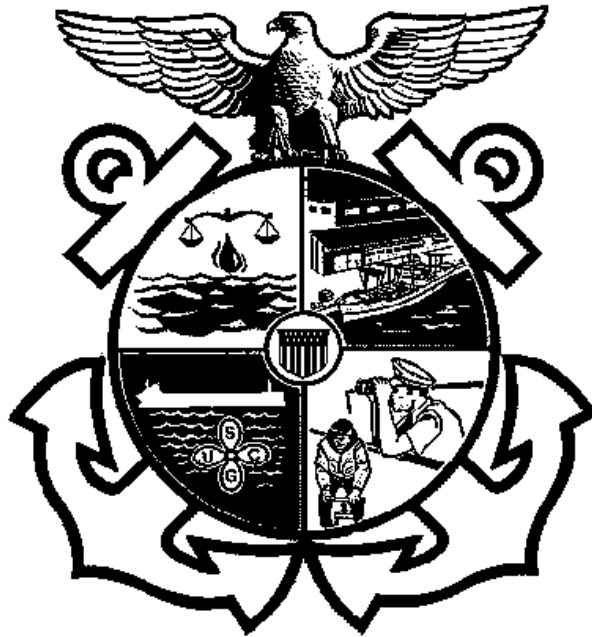

K-Boat Inspector (KI)



PQS Workbook

KI Qualification Task Matrix

TSK #	TASK	DATE
AC02	Inspect berthing accommodations on a SPV.	
AC09	Inspect ladders, railways, and gangways on a SPV.	
AC10	Inspect heating and cooking equipment.	
DD01	Ensure that the vessel's entire underwater body is clean for examination.	
DD03	Determine whether structural configuration match plans for an SPV.	
DD06	Examine steel hull for damage and defects.	
DD07	Examine aluminum hull for damage and defects.	
DD08	Examine fiberglass hull for damage and defects.	
DD09	Examine wood hull for damage and defects.	
DD11	Examine draft marks.	
DD12	Examine load line.	
DD13	Examine drydock plugs for local wastage and proper fit.	
DD15	Examine sea chests and overboard discharges on a SPV.	
DD17	Examine propeller for damage on a SPV.	
DD19	Inspect tailshaft(s) and stern bearings on a SPV.	
DD21	Inspect the rudder installation on a SPV.	
DD24	Examine freeing ports and scuppers.	
DD26	Open sea valves for inspection on a SPV.	
DD32	Evaluate repair proposals and inspect completed repairs on a SPV.	
ED01	Observe fire and boat drills.	
ED03	Observe emergency drills.	
ED04	Review logbook and ensure entries for tests and drills have been made.	
ED05	Review emergency checkoff list and instructions to passengers.	
EE04	Inspect EPIRB.	
EE05	Test and inspect the general alarm system.	
EE09	Inspect pyrotechnics.	
ES01	Inspect switchboards.	
ES02	Inspect ship's service generators.	
ES04	Inspect emergency generators.	

KI Qualification Task Matrix

TSK #	TASK	DATE
ES05	Inspect battery installation.	
ES07	Ensure lighting systems/fixtures are adequate and meet requirements.	
ES10	Inspect distribution panels.	
ES12	Survey/inspect electrical cable installation.	
ES14	Test/inspect internal communication and control systems.	
ES17	Inspect shore power connection.	
ES19	Perform operational test of remote ventilation shutdowns.	
FF01	Determine amount, type, location of fire protection equipment required.	
FF02	Inspect CO2 systems.	
FF06	Inspect Halon systems.	
FF08	Inspect semi-portable firefighting equipment.	
FF09	Inspect portable firefighting equipment.	
FF10	Inspect fire main and fire stations.	
FF13	Witness operational test of fire detection system.	
FF14	Examine fire doors and dampers	
FF19	Inspect condition of vent and duct leading from grill in galley.	
FF20	Examine fire control plan.	
FF21	Inspect accommodation areas for compliance with SFP requirements.	
FP02	Verify that required forms, placards and notices are posted on a SPV.	
GT02	Examine ground tackle and related equipment on a SPV.	
II03	Review vessel documents and papers on a SPV.	
II05	Discuss scope of inspection with owner's representative.	
II06	Obtain CG-2692 for reportable marine casualties.	
II07	Examine gas-free certificate.	
II09	Review any outstanding CG-835s and ask if other deficiencies exist.	
LS04	Determine lifesaving equipment required on a SPV.	
LS05	Inspect life preservers.	
LS06	Inspect ring buoys.	
LS07	Inspect survival suits.	

KI Qualification Task Matrix

TSK #	TASK	DATE
LS15	Inspect lifefloats and buoyant apparatus.	
LS16	Inspect inflatable liferaft installations.	
LS17	Inspect rescue boat.	
MI02	Examine steering gear on a SPV.	
MI05	Inspect fuel oil service and transfer system on a SPV.	
MI07	Inspect bilge pumps installation, piping, and valves on a SPV.	
MI09	Examine potable water system.	
MI11	Observe operational tests of machinery on a SPV.	
MI14	Inspect the diesel installation and assembly on a SPV.	
MI16	Inspect air starting systems.	
MI17	Inspect hydraulic starting systems.	
MI18	Inspect electric starting systems.	
MI22	Internally examine UPVs requiring internal examination.	
MI23	Externally examine UPVs.	
MI24	Hydrostatically test UPVs requiring hydrostatic testing.	
MI25	Ensure all UPVs are properly equipped with pressure relief valves.	
MI26	Witness pressure relief valve test.	
MI30	Conduct a fireside and external exam of an auxiliary/heating boiler.	
MI31	Conduct a waterside examination of an auxiliary/heating boiler.	
MI32	Conduct required mountings inspections.	
MI33	Conduct a hydrostatic test of the boiler(s).	
MI34	Witness the lifting and reseating of safety valves.	
MI38	Ensure insulation on steam piping provided to reduce personnel hazard.	
NS01	Ensure radars are operable.	
NS02	Inspect magnetic compass.	
NS05	Examine radio equipment and FCC or SOLAS documents.	
NS06	Inspect navigation and signal lights.	
NS09	Inspect signaling devices.	
NS11	Inspect navigation publications on a SPV.	

KI Qualification Task Matrix

TSK #	TASK	DATE
NT01	Approve NDT method for specific applications.	
NT02	Check certification of NDT technician.	
NT03	Witness NDT in accordance with applicable standards.	
NT04	Evaluate NDT results.	
PP03	Ensure that MSD requirements are met.	
PP06	Verify MARPOL V compliance on a SPV.	
RT01	Complete Initial Indoctrination Lesson Plan Series (IILPS).	
RT02	Complete Inspection Department Course.	
RT06	Complete SMI Introduction Course.	
RT12	Complete SMI KI Course or the Hull and Machinery Courses.	
ST02	Examine stability letter.	
WI01	Inspect watertight doors.	
WI04	Inspect watertight bulkhead penetrations on a SPV.	
WI08	Inspect hull and deck openings on a SPV.	
WI09	Inspect port light covers.	
WI11	Evaluate steel or aluminum hulls and all accessible spaces for damage.	
WI12	Evaluate FRP hulls and all accessible spaces for damage.	
WI13	Evaluate wood hulls and all accessible spaces for damage.	
WR06	Examine approved WPS and WPQ.	

Trainee's OJT Manual has been reviewed and I recommend a training qualification board be scheduled.

Training Officer: _____

Date: _____

Date Qualification Board Completed: _____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
AC02	Inspect berthing accommodations on a small passenger vessel. <ul style="list-style-type: none"> • Space for passengers • Toilet facilities • Bunk arrangements • Means of escape • Separation from machinery and fuel tank spaces • Ventilation 	_____	_____
AC09	Inspect ladders, rails and gangways on a small passenger vessel. <ul style="list-style-type: none"> • Efficient” rails provided on decks and bridges of proper height and configuration • Storm rails provided where persons would have normal access 	_____	_____
AC10	Inspect heating and cooking equipment. <ul style="list-style-type: none"> • Thermal cutouts for electric space heaters • Grab rails for electric ranges • LPG/CNG installed in accordance with regulations 	_____	_____
DD01	Ensure that the vessel’s entire underwater body is clean and exposed for examination (areas in way of blocking excluded).	_____	_____
DD03	Determine whether structural configurations match approved plans for a small passenger vessel.	_____	_____
DD06	Examine steel hull for damage and defects.	_____	_____
DD07	Examine aluminum hull for damage and defects.	_____	_____
DD08	Examine fiberglass hull for damage and defects.	_____	_____
DD09	Examine wood hull for damage and defects.	_____	_____
DD11	Examine draft marks (placement of marks consistent with stability letter and properly scribed).	_____	_____
DD12	Examine load lines (placement of marks consistent with load line certificate and properly scribed).	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
DD13	Examine drydock plugs for local wastage and fit.	_____	_____
DD15	Examine sea chests and overboard discharges on a small passenger vessel.	_____	_____
DD17	Examine propeller for damage on a small passenger vessel.	_____	_____
DD19	Inspect tailshaft(s) and stern bearings on a small passenger vessel. <ul style="list-style-type: none"> • Examine visible portions of shaft • Determine bearing wear down 	_____	_____
DD21	Inspect the rudder installation on a small passenger vessel. <ul style="list-style-type: none"> • Examine rudder post, rudder stock for deterioration and fractures • Examine rudder carrier for deterioration and fractures 	_____	_____
DD24	Examine freeing ports and scuppers.	_____	_____
DD26	Open sea valves for inspection on a small passenger vessel. <ul style="list-style-type: none"> • Stem, gate, and guides in good condition • Examine condition of valve bodies, fastenings, packing glands, and spool pieces 	_____	_____
DD32	Evaluate repair proposals and inspect completed repairs on a small passenger vessel. <ul style="list-style-type: none"> • Sketch and bill of materials • Materials and welding details same as original • Inserts properly made • Fit up and joint preparation • Back gouging • Weld sequencing • Visual inspection of completed repair • Pressure test repairs (hose, air, hydro) 	_____	_____
ED01	Observe fire and boat drills. <ul style="list-style-type: none"> • Maximum participation by crew accomplished • Crew members report to their proper stations • During fire drills, fire pump(s) started and fire hose(s) lead out 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
ED01 (cont'd.)	<ul style="list-style-type: none"> • Individual designated as person in charge conversant with duties and procedures to be followed • Emergency equipment broken out for fire drills and designated person assigned to use gear present, properly equipped and familiar with duties • For fire drills, communications established between control center, normally the bridge, and source of emergency • Proper alarm is sounded on vessel's general alarm system • All alarm bells function properly • Visual signals in machinery spaces function properly • Escapes are clear and unobstructed • For fire drills, watertight doors secured to isolate compartments • Crew members report to stations for drills wearing PFDs, cap and shoes • For boat drills - person in charge or each boat or raft has muster list • For boat drills - communication established between bridge and boat deck • Lifeboats with fleming gear - gear is operable and crew familiar with use • Lifeboats with oars - crew is exercised • Motorized lifeboats - person in charge and engineer competent in operating the engine • Hydraulic starting system on motorized vessels capable of making six cold starts • Crew competent in readying vessel for launching (belly gripes removed, retaining pin on counter weight removed, etc.) • Lifeboat can be safely and efficiently released from falls by boat crew 		
ED03	Observe emergency drills. <ul style="list-style-type: none"> • Maximum participation by crew accomplished • During fire drills, fire pump(s) started and fire hose(s) lead out • All alarm bells function properly • Escapes are clear and unobstructed • Crew competent to handle emergency situations 	_____	_____
ED04	Review logbook and ensure entries related to tests and drills have been made.	_____	_____
ED05	Review emergency checkoff list and instructions to passengers.	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
EE04	Inspect EPIRB. <ul style="list-style-type: none"> • Right type • Operative • Stowed properly • Tested as frequently and in manner required by regulations • Battery still within date 	_____	_____
EE05	Test and inspect the general alarm system. <ul style="list-style-type: none"> • Contact makers located in accordance with applicable regulations • General alarm bells located in accordance with applicable regulations • Sound levels produced meet the minimum criteria required by regulations (is it loud enough) • Any of the alarm bells inoperative • Visual signals installed in areas of high ambient noise level • Contact makers and general alarm bells marked in accordance with regulations 	_____	_____
EE09	Inspect pyrotechnics. <ul style="list-style-type: none"> • Proper type equipment provided for vessel being inspected • Equipment provided within time limits for service life • Equipment properly stowed • Persons in charge of lifeboats knowledgeable in use of equipment 	_____	_____
ES01	Inspect switchboards. <ul style="list-style-type: none"> • Nonconductive mat on deck in front of board • Nonconductive rails on board face • Nonconductive rails at the rear and sides • Dripshield on the board's top • Ground detection indicators working with no grounds indicated • Meters calibrated and working • Synchronizing controls working. • Identification for controls and meters • Area is dry and clean • Working space is provided in accordance with regulations • Overcurrent protection properly labeled 	_____	_____
ES02	Inspect ship's service generators. <ul style="list-style-type: none"> • Generators of a size or arrangement which require overspeed trips • Operational test of overspeed trips and alarms within specified limits 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
ES02 (cont'd.)	<ul style="list-style-type: none"> • If the DC or AC generators operate in parallel, are the reverse power/current trips working • Guards installed around rotating or live machinery • Discoloration from overheating apparent • Filters on air intakes working to keep internals free from dust and dirt • Windings oily or dirty • Odd bearing noises present • Voltage regulated within limits specified by CFR • Working diesel low lube oil pressure trip and alarms • Working high temperature detectors and alarms for AC generators • Nameplates properly in place 		
ES04	<p>Inspect emergency generator.</p> <ul style="list-style-type: none"> • Means of starting is provided • The following alarms/shutdowns are operable: <ul style="list-style-type: none"> – Low lube oil pressure – High cooling water temperature – Overspeed – Fixed firefighting system shutdown • The generator auto-start circuit functions and the generator can power its full-rated load within 20 seconds and accept the final emergency load within 45 seconds of loss of the normal power supply • Independent fuel supply is provided, with remote shut-off valve installed and properly marked 	_____	_____
ES05	<p>Inspect emergency batteries.</p> <ul style="list-style-type: none"> • Size of installation and required ventilation • Battery box is properly lined • Batteries are secure in the trays • Adequate space is provided over the cells • A means of charging is provided • Conductor overcurrent protection is provided • Ventilation/charger interlocked 	_____	_____
ES07	<p>Ensure lighting systems and fixtures are adequate and meet regulations.</p> <ul style="list-style-type: none"> • Passageways and public areas • Machinery spaces • Passenger and crew spaces • Berth lights • Exit lights • Pilot ladders • Navigation • Signaling lights 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
	<ul style="list-style-type: none"> Lifeboat and liferaft embarkation stations 		
ES10	Inspect distribution panels. <ul style="list-style-type: none"> Circuit directory provided Amperage ratings of the protective devices in accordance with required circuit directory Panelboard blanks installed, where necessary 	_____	_____
ES12	Survey electrical cable installation and determine: <ul style="list-style-type: none"> Vertical and horizontal supports properly spaced Radius of the bends exceed CFR specifications Portable cables used for unauthorized purposes Acceptable materials used Hazardous conditions exist (jury rigs, dead end cables, splices, etc.) 	_____	_____
ES14	Test internal communication and control systems and ensure the following systems work properly. <ul style="list-style-type: none"> General alarms (bells and contractors) Sound powered phones to all required stations Engine order telegraph and wrong direction alarm Public address system Engineer's assistance needed alarm Engineer's call system Fire detection/fire alarm system Refrigerated space alarm system 	_____	_____
ES17	Inspect shore power connection on a small passenger vessel. <ul style="list-style-type: none"> Means to disconnect Watertight construction 	_____	_____
ES19	Inspect ventilation systems and perform operational test of alarms and remote ventilation shutdowns.	_____	_____
FF01	Determine amount, type and location of fire protection equipment required. <ul style="list-style-type: none"> By the vessel's Certificate of Inspection By the respective regulations 	_____	_____
FF02	Inspect fixed CO ₂ systems. <ul style="list-style-type: none"> Test sirens and time delays Obtain servicing reports Bottles underweight Flexible loops serviced and tested Diffuser heads clear Access to CO₂ room free of obstruction 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
	<ul style="list-style-type: none"> • Hydrostatic test required by regulations • Instructions posted 		
FF06	Inspect Halon systems. <ul style="list-style-type: none"> • Coast Guard approved • Markings and notices correct and properly posted • Controls functioning • Closure for protected spaces provided • Quantity sufficient • Vent and engine shutdowns functioning 	_____	_____
FF08	Inspect semi-portable fire fighting equipment. <ul style="list-style-type: none"> • Installation approved • System serviceable • Instructions posted • Correct type and amount on hand • Markings correct 	_____	_____
FF09	Inspect portable firefighting equipment. <ul style="list-style-type: none"> • Fire extinguishers approved • Each unit serviceable • Adequate spare charges provided • Correct type and amount on hand • Distributed per fire control plan • Markings correct • Servicing properly logged 	_____	_____
FF10	Inspect fire main and fire stations. <ul style="list-style-type: none"> • Correct number of fire pump(s) provided • Fire hoses meet acceptable standards • Equipment provided at each required fire station pursuant to regulations • Requirements for hose length and size at each fire station complied with • Fire pump(s) capable of providing adequate pressure to highest and most remote fire station using pitot tube • Pressure gauge installed on discharge side of fire pump • Fire hoses serviceable after hydro testing • Valves at fire stations operable • Fire main(s), hose(s), and equipment compatible at each station • Approved nozzles and applicators provided for each fire station • Fire pump relief valve functions properly • Markings correct 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
FF13	Witness operational test of fire detection system. <ul style="list-style-type: none"> • System serviceable • All sensors free of obstructions and functioning • Alarms and indicators functioning correctly • Required instructions and diagrams provided • Markings correct 	_____	_____
FF14	Inspect and ensure proper operation of fire doors and dampers. <ul style="list-style-type: none"> • Test controls: local/remote • Remote shutdowns for machinery spaces and quarters ventilation systems • Markings correct • Fusible links 	_____	_____
FF19	Inspect condition of vents and ducts leading from grill in galley for fire hazard.	_____	_____
FF20	Examine fire control plan and/or general arrangement plan to verify structural fire protection required on the vessel under inspection.	_____	_____
FF21	Determine that appropriate Class A boundaries separate accommodation and control spaces from the following: <ul style="list-style-type: none"> • Machinery spaces • Main pantry • Hazardous locations/classified areas • Storerooms 	_____	_____
FP02	Verify that the required forms, placards, and notices are posted on a small passenger vessel. <ul style="list-style-type: none"> • Pollution/MARPOL: <ul style="list-style-type: none"> – Placard – Waste management plan • Coast Guard forms: <ul style="list-style-type: none"> – CG-841: Certificate of Inspection – CG-3372: Oil Pollution • Passenger notices • SOLAS certificates • Markings: conspicuous and legible 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
GT02	Verify that ground tackle and related equipment is in satisfactory condition on a small passenger vessel. <ul style="list-style-type: none"> • Anchors • Chain or line 	_____	_____
II03	Review vessel documents listed in MSIS and VFLD and papers on a small passenger vessel.	_____	_____
II05	Discuss scope of inspection with owner's representative. Decide on general sequence of inspection.	_____	_____
II06	Obtain CG-2692 for reportable marine casualties/ structural failure report.	_____	_____
II07	Examine gas-free certificate issued by an NFPA-certified marine chemist for hot work and/or confined space entry. <ul style="list-style-type: none"> • Information on the gas-free certificate meet the requirements of NFPA Standard 306 and Coast Guard confined space entry/benzene exposure policy • Gas-free certificate been maintained by a designated competent person and records kept as required by OSHA regulations • Marine chemist certified by NFPA • Review benzene and confined space entry policies 	_____	_____
II09	Review any MSIS inspection notes and outstanding deficiencies (CG-835s). Ask owner's representative if any other deficiencies exist.	_____	_____
LS04	Determine amount and type of lifesaving equipment required on a small passenger vessel. <ul style="list-style-type: none"> • Certificate of Inspection • CFRs 	_____	_____
LS05	Inspect life preservers. <ul style="list-style-type: none"> • Properly equipped with lights, whistles and reflective tape • Approved for intended service • Sufficient serviceable units aboard and properly stowed • Properly marked 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
LS06	Inspect ring buoys. <ul style="list-style-type: none"> • Approved for intended service • Properly colored and marked • Correctly equipped with waterlights and line • Serviceable • Sufficient number of ring buoys are aboard 	_____	_____
LS07	Inspect survival suits. <ul style="list-style-type: none"> • Equipped as required • Physically serviceable • Sufficient number of units aboard and properly stowed 	_____	_____
LS15	Inspect lifefloats and buoyant apparatus. <ul style="list-style-type: none"> • Stowed in accordance with applicable regulations, using proper method of securing and float free link • Water lights and reflective tape are installed as required • Body of unit in good condition, life ropes and netting in serviceable condition • Marked in accordance with applicable regulations • Required equipment provided 	_____	_____
LS16	Inspect inflatable liferaft installations. <ul style="list-style-type: none"> • Serviced annually • Last servicing date at approved facility • Properly secured in the cradle designed for them • Hydrostatic releases serviced • Alternative means of securing meets criteria promulgated in NVIC 4-86 • Suspension test • Davit weight test • Operating instructions posted at embarkation station 	_____	_____
LS17	Inspect rescue boat. <ul style="list-style-type: none"> • Maintained in serviceable condition • Stowed in proper location as indicated on safety equipment plan. • Can be readily launched either by hand or by davit • Rescue boat is on “approved” list • Release mechanism is in service and in good condition • Required equipment in boat 	_____	_____
MI02	Examine steering gear on a small passenger vessel. <ul style="list-style-type: none"> • Operational tests • Hydraulic leaks • Cable condition 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
	<ul style="list-style-type: none"> Leakage through rudder post 		
MI05	Inspect fuel oil service and transfer system on a small passenger vessel. <ul style="list-style-type: none"> Determine condition of piping and manifolds Ensure no excessive fuel oil leakage exists Test remote operated fuel oil system valves Determine condition of fuel oil tank vent lines and flame screens 	_____	_____
MI07	Inspect bilge pumps installation, piping, and valves on a small passenger vessel. <ul style="list-style-type: none"> System capable of pumping from any watertight compartment Standing water drain to suction pipes Bilge manifold has independent bilge suction control and is properly marked Suction strainers are installed 	_____	_____
MI09	Examine potable water system. <ul style="list-style-type: none"> Dedicated tanks; treated or coated Tanks ventilated with insect screens installed Water pump(s) and pressurization system operable Pressure tank installation 	_____	_____
MI11	Determine what operational tests are required; witness tests and state if results are satisfactory on a small passenger vessel. <ul style="list-style-type: none"> Low lube oil shutdowns and alarms High coolant temperature alarm 	_____	_____
MI14	Inspect the diesel installation and assembly on a small passenger vessel, paying particular attention to the following: <ul style="list-style-type: none"> Fuel and lube oil fittings (checking for leakage) Instrumentation Guards over rotating machinery Exhaust system: <ul style="list-style-type: none"> Leaks Lagging Water cooling system Air intakes 	_____	_____
MI16	Inspect air starting systems. <ul style="list-style-type: none"> Air receivers 	_____	_____

KI Tasks

<u>Task</u> <u>Number</u>	<u>OJT</u> <u>Task</u>	<u>Date</u> <u>Completed</u>	<u>Verifying</u> <u>Officer</u>
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- Piping
- Compressors

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
MI17	Inspect hydraulic starting systems. <ul style="list-style-type: none"> • Pumps and strainers • Piping • Accumulators 	_____	_____
MI18	Inspect electrical starting systems.	_____	_____
MI22	Internally examine unfired pressure vessels requiring internal examination. <ul style="list-style-type: none"> • Check for corrosion, scale, pitting, cracks and erosion • Examine welded connections internally 	_____	_____
MI23	Externally examine unfired pressure vessels. <ul style="list-style-type: none"> • Pressure gauge • Evidence of structural damage • Data plate legible • Foundations structurally sound • Attachments secure 	_____	_____
MI24	Hydrostatically test unfired pressure vessels requiring hydrostatic testing. <ul style="list-style-type: none"> • Determine MAWP • Observe pressure test 	_____	_____
MI25	Ensure all unfired pressure vessels are properly equipped with pressure relief valves in accordance with regulations.	_____	_____
MI26	Witness pressure relief valve test. <ul style="list-style-type: none"> • MAWP not exceeded • Valve seats tightly • Capacity not exceeded • Correct valve type • Hand lifting device 	_____	_____
MI30	Conduct a fireside and external examination of an auxiliary/heating boiler. <ul style="list-style-type: none"> • Furnace (distortion) • Combustion chamber (crown sheet, wrapper sheet, back sheets (distortion) • Boiler shell and heads • Stay bolts • Boiler saddles and foundations • Plating in way of mountings (wastage due to leaking valves and fittings) • Cracks in the plating due to flexing of the heads or leakage • Wastage around manhole gaskets 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
MI31	<ul style="list-style-type: none"> Note heat number and condition of fusible plugs <p>Conduct a waterside examination of an auxiliary/heating boiler.</p> <ul style="list-style-type: none"> Tubes (Pitting - determine general depth and tube type) Internal surface conditions (scaling, pitting, corrosion, erosion) 	_____	_____
MI32	<p>Conduct required mountings inspections as follows:</p> <ul style="list-style-type: none"> 5-year mountings open: <ul style="list-style-type: none"> Determine which valves to be opened Inspect seat, disc, stem, integrity of valve body, condition of stem packing gland and gland ring bolts 10-year mountings removed, studs examined including inspection as per mountings open and: <ul style="list-style-type: none"> Determination of valves to be removed for inspection of pressure piping between valve and boiler. Representative studs removed from valve flanges for inspection to determine: <ul style="list-style-type: none"> * Integrity of studs due to corrosion, neck down, deformation and thermal stress * Proper grade installed for system pressure and temperature 	_____	_____
MI33	<p>Conduct a hydrostatic test of the boiler(s).</p> <ul style="list-style-type: none"> Test conducted in conjunction with required fireside exam. Appropriate test pressure (annual, quadrennial, repair) Water temperature is within limits Test pressure is achieved and held for required time period Blanks are installed in steam lines where necessary so a situation does not arise where a valve separates steam on one side from water on the other Tube joints, header connect, and handhole plates tight Main steam piping tested from boiler drum to throttle valve All steam piping subject to main boiler pressure and greater than 3 inches nominal size is tested 	_____	_____
MI34	<p>Witness the lifting and reseating of superheater and drum safety valves including pilot operated valves.</p> <ul style="list-style-type: none"> Determine MAWP Ensure that drum safety valve is set no higher than MAWP but above normal steaming range Ensure that the superheater safety valve is set correctly in relation to drum valves. See manufacturer's boiler book for pilot operated valve Ensure that the "blow down" falls within 2-4% of the set pressure for each valve Ensure that there is no simmering or chattering Test hand relieving gear 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
	<ul style="list-style-type: none"> • Ensure integrity of escape piping 		
MI38	Ensure insulation is provided to reduce personnel hazard.	_____	_____
NS01	Ensure radars are operable. <ul style="list-style-type: none"> • ARPA operational • Correct number and type of radars aboard 	_____	_____
NS02	Inspect magnetic compass. <ul style="list-style-type: none"> • Valid deviation table • Any structural modification taken place or equipment been installed/removed near compass since last table completed 	_____	_____
NS05	Ensure radio equipment and FCC or SOLAS documents are aboard and valid.	_____	_____
NS06	Inspect navigation and signal lights. <ul style="list-style-type: none"> • Properly functioning • Correctly placed in accordance with applicable regulations • Certificate of alternative compliance on board • Properly functioning navigation light indicator panel 	_____	_____
NS09	Inspect signaling devices. <ul style="list-style-type: none"> • Navigation sound appliance • Distress signals • Navigation day shapes 	_____	_____
NS11	Inspect navigation publications on a small passenger vessel. <ul style="list-style-type: none"> • Those required by CFR provided • Publications are current or updated where necessary • Necessary charts provided and corrected 	_____	_____
NT01	Approve NDT method for specific applications.	_____	_____
NT02	Check the certification of the NDT technician.	_____	_____
NT03	Witness NDT in accordance with applicable standards. <ul style="list-style-type: none"> • Dye penetrant • Magnetic particle • Radiography • Ultrasonics 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
NT04	Evaluate NDT results.	_____	_____
PP03	Insure that MSD requirements are met, if installed. <ul style="list-style-type: none"> • Proper type installed • Device approved for use aboard inspected vessels • Adequate capacity • System is piped and wired in accordance with Subchapters F and J • Manufacturer's instructions available • Required instructions and warning placard posted 	_____	_____
PP06	Verify MARPOL V compliance on a small passenger vessel. <ul style="list-style-type: none"> • Check waste management plan • Plastics retained or incinerated • Placards posted 	_____	_____
RT01	Complete Initial Indoctrination Lesson Plan Series (IILPS).	_____	_____
RT02	Complete Inspection Department Course.	_____	_____
RT06	Complete SMI Introduction Course.	_____	_____
RT12	Complete SMI KI Course or the Hull and Machinery Courses.	_____	_____
ST02	Examine stability letter.	_____	_____
WI01	Inspect watertight doors. <ul style="list-style-type: none"> • Knife edges intact and in good repair; no excessive paint buildup • Gasket material installed in channel is in good condition and not painted • Knife edges and channel meet as designed when door closed • Hinges and hinge bolts in good condition; no sagging of door due to rounded out hinges or worn hinge bolts • Dogs are all operable; grease fittings still usable • Dogging wedges not excessively worn and fit up satisfactory • Quick-closing gear operable and adequate closure achieved • Any port lights installed in watertight doors use wire mesh reinforced glass • Dogging wrench provided in vicinity of watertight door(s) 	_____	_____

KI Tasks

<u>Task Number</u>	<u>OJT Task</u>	<u>Date Completed</u>	<u>Verifying Officer</u>
WI04	Inspect watertight bulkhead penetrations on a small passenger vessel. <ul style="list-style-type: none"> • Penetrations properly sealed to maintain watertight integrity through use of devices such as stuffing tubes 	_____	_____
WI08	Inspect hull and deck openings on a small passenger vessel. <ul style="list-style-type: none"> • Dogs, gaskets and knife edges are maintained as previously described for watertight doors, on any hull or deck openings 	_____	_____
WI09	Inspect port light covers. <ul style="list-style-type: none"> • Port lights at the main deck level have a cover installed • Dogs free on each shutter • Shutters restricted in their movement from stowed-to-closed position 	_____	_____
WI11	Evaluate steel or aluminum hulls and all accessible spaces for damage. <ul style="list-style-type: none"> • Wastage • Fractures • Upsets of shell plate • Deformed framing or stiffeners • Evaluate proposed repairs • Unauthorized/improper repairs or modifications 	_____	_____
WI12	Evaluate fiberglass hulls and all accessible spaces for damage. <ul style="list-style-type: none"> • Loose or wasted fasteners • Mechanical damage • Blistering • Delaminations • Evaluate proposed repairs • Unauthorized/improper repairs or modifications 	_____	_____
WI13	Evaluate wood hulls and all accessible spaces for damage. <ul style="list-style-type: none"> • Loose or wasted fasteners/keel bolts • Mechanical damage • Marine borer damage • Loose caulking/sprung planks • Evaluate proposed repairs • Rot/lack of ventilation in closed spaces • Unauthorized/improper repairs or modifications 	_____	_____
WR06	Examine approved Weld Procedure Specification and	_____	_____

KI Tasks

Task
Number

OJT
Task

Date
Completed

Verifying
Officer

Welder Performance Qualifications.

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This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across the entire width of the page, providing a guide for writing. The background is a solid off-white color. There are no margins, text, or other markings present.

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